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EXAMINER

MOORE, KARLA A

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/812,075

Applicant(s)

ARNOLD, ROCKY R.

Examiner

Karla Moore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 19-30 and 38-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 19-28 and 38-51 is/are rejected.
- 7) ☒ Claim(s) 29-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5¹⁹ and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,364,481 to Sasaki et al.

3. Sasaki et al. disclose an apparatus for coating a substrate in Figures 8a and 8b, the apparatus comprising: a support (4) that supports the substrate; and at least one moveable processing apparatus that comprises: a movable chamber (8) configured to create a vacuum environment around a portion of the substrate; a metal source (51) and a thermal heat source (6) that are spaced from the substrate and configured to deposit a metal layer onto the substrate in the vacuum environment, wherein the movable chamber is movable between a first position adjacent the substrate (Figure 8a) and a second position apart from the substrate (Figure 8b) (column 8, row 39 to column 9, row 10).

4. With respect to claim 2, the support comprises a conveyor assembly that can move the substrate.

5. With respect to claim 3, the processing apparatus in the first position creates a seal around at least a portion of the substrate (using sealing materials 81).

6. With respect to claim 4, said apparatus further comprises a vacuum source coupled to the processing apparatus for creating a vacuum in the processing apparatus around the portion of the substrate (column 7, row 64 to column 8, row 11 and column 9, rows 23-30).

7. With respect to claim 5, the support positions the substrate along a plane, wherein the processing apparatus is movable orthogonal to the plane (see arrows in Figures 8a and 8b).

8. With respect to claim 19, as noted above and illustrated in Figures 8a and 8b, the apparatus may comprise first and second apparatus on opposing sides of a substrate.

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9. With respect to claim 51, Sasaki et al. discloses an apparatus for coating a substrate in Figures 8A and 8B, the apparatus comprising: a support (2-4) that supports the substrate; at least one movable processing apparatus that comprises: a movable chamber (8) configured to create a vacuum environment around a portion of the substrate; metallization assembly (51) spaced from the substrate and configured to deposit a metal layer onto the substrate in the vacuum environment, wherein the movable chamber is movable between a first position which creates a vacuum environment around the portion of the substrate and a second position in which the movable chamber is spaced apart from the substrate.

10. Claims 20 and 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,616,451 to Gallez.

11. Gallez discloses an apparatus for metallizing a substrate (column 2, rows 35-44), the apparatus comprising: a support (Figure 1B, 4') that can maintain at least a portion of the substrate (S) along a first plane; and at least one rotatable processing apparatus (8') that is movable substantially orthogonal to the orientation of the substrate; wherein the processing apparatus comprises a plurality of modular units, the plurality of modular units comprising at least one of a thermoform assembly, a heating assembly, a **metallizing assembly**, or a cutting assembly, wherein rotation of the processing apparatus allows a different modular unit to be positioned adjacent the substrate.

12. With respect to claim 22, the support comprises a conveyor assembly (rollers, 4) for moving the substrate.

13. With respect to claim 23, the modular units are "movable" to a processing position when in use and "removable" from that processing position when not in use.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. as applied to claims 1-5 and 51 above in view of U.S. Patent No. 2,000,077 to Harshberger.

16. Sasaki et al. disclose the invention substantially as claimed and as described above.

17. However, Sasaki et al. fail to teach the processing apparatus is rotatable along an axis that is parallel to the plane of the substrate.

18. Harshberger discloses a rotating application member for applying multiple materials to a substrate wherein the applicator rotates for the purpose of relocating a different material adjacent to a substrate for deposition (column 1, rows 24-47 and column 4, row 11 through column 5, row 23).

19. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a rotating application member/processing apparatus in Sasaki et al. in order to apply multiple materials to a substrate as taught by Harshberger.

20. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,616,451 to Gallez.

21. Gallez discloses the invention substantially as claimed and as described above.

22. However, Gallez fails to explicitly teach at least one rotatable processing apparatus comprises a first processing apparatus disposed on a first side of the substrate and a second processing apparatus disposed on a second side of the substrate.

23. Gallez does state that "...such apparatus can be used for depositing single or plural-layer coatings on any given area of a strip or ribbon, or on each of successive areas thereof...". This fairly implies that the apparatus can be modified to process any face of a substrate, including the opposing face.

24. One of ordinary skill in the art would recognize that additional rotatable apparatus could be used to accomplish such processing.

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25. Additionally, the courts have ruled that the mere duplication of parts has no patentable significance unless a new and unexpected result is produced. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).
26. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gallez as applied to claims 20 and 22-23 above in view of U.S. Patent No. 5,364,481 to Sasaki et al.
27. Gallez discloses the invention substantially as claimed and as described above.
28. However, Gallez fails to teach the modular unit comprising the metallizing assembly comprises a cavity for receiving and sealing the substrate.
29. Sasaki et al. teach a substrate and sealing material associated with film-forming chamber walls for the purpose of maintaining the film forming chamber airtight during film formation (column 5, rows 26-31).
30. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a modular cavity for receiving and sealing the substrate in Gallez in order to maintain the film forming chamber airtight during film formation as taught by Sasaki et al.
31. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gallez and Sasaki et al. as applied to claim 24 above, and further in view of Japanese Patent Publication No. 10-168576 A to Akiyama.
32. Gallez and Sasaki et al. disclose the invention substantially as claimed and as described above, including each of the modular units comprising a conduit (Figure 10, 71), wherein the conduit is connected to a vacuum source (column 7, row 64 through column 8, row 11 and column 9, rows 58-60).
33. However, Gallez and Sasaki et al. fail to teach the conduit as releasably connected to the vacuum source.
34. Akiyama teaches releasably connecting a reaction chamber to a vacuum source for the purpose of providing the capability of attaching the reaction chamber to multiple vacuum sources (solution of abstract).

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35. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a conduit releasably connected to a vacuum source in Gallez and Sasaki et al. in order to have the capability of attaching a reaction chamber to multiple vacuum sources as taught by Akiyama.

36. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gallez and Sasaki et al. as applied to claim 24 above, and further in view of U.S. Patent No. 4,342,631 to White et al.

37. Gallez and Sasaki et al. disclose the invention substantially as claimed and as described above.

38. However, Gallez and Sasaki et al. fail to teach the heater as a filament. Nor does the prior art teach the apparatus comprising a removable cane as a metallic vapor source.

39. White et al. disclose the use of a filament for the purpose of using the filament (Figure 1, 20) as vaporizing means arranged to receive and heat a metal source (cane) being used as a deposition/plating material (column 4, rows 8-16). Examiner notes that the cane is removable in the sense that once the cane is vaporized it is removed from its position where it is received within the heating filament.

40. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a filament and cane in Gallez and Sasaki et al. in order to receive and heat a material (cane) intended for deposition on a substrate as taught by White et al.

75. Claims 27 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication No. 2002/0046849 to Rapp et al. in view of U.S. Patent No. 6,271,465 to Lacey.

76. Rapp et al. disclose an in-line processing apparatus for manufacturing an EMI shield body substantially as claimed that comprises a plurality of stations, the apparatus may comprise a thermoforming station (paragraph 48) comprising a pre-heating element (the mold is heated before the molding process begins); a vacuum metallization station (paragraphs 43 and 57) comprising a metal source, wherein the vacuum metallization assembly can create a seal around the thermoformed substrate so as to create a vacuum environment around the thermoformed substrate, wherein the vacuum metallization assembly deposits a metal layer onto the thermoformed substrate in the vacuum

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environment; and a conveyor assembly that moves the substrate from the thermoforming station to the vacuum metallization station; and a cutting assembly disposed at a third station to cut the shaped substrate (paragraph 43), the cutting assembly being movable relative to the shaped substrate (in order to cut the substrate, the cutting assembly would have to be movable relative to the thermoformed substrate).

77. Examiner realizes that Rapp et al. fail to explicitly disclose the details of the conveyor assembly, however, Figure 2, fairly suggests its existence and one of ordinary skill in the art would recognize that a continuous system as disclosed would require a conveyor assembly.

78. Rapp et al. fail to teach the thermoforming assembly comprising a vacuum source that pulls the heated thermoform substrate against a surface of a mold.

79. Lacey teaches that an EMI shield can be formed using a vacuum forming process for the purpose of providing a process which is lower in cost, simpler in construction and lighter in weight than a conventional shield (column 3, row 66-column 4 and column 5, rows 39-52).

80. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have used a vacuum forming process to create an EMI shield in Rapp et al. in order to take advantage of the low cost of the process and the simpler construction and lighter weight of a substrate using the process as taught by Lacey.

81. Rapp et al. and Lacey fail to teach the vacuum metallization station comprising a thermal heat source.

41. White et al. teach the use of a thermal heat source spaced away from a substrate during processing, where the thermal heat source is provided for the purpose of heating a metallic plating material to a vaporizing temperature for deposition (column 5, rows 9-19).

42. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a thermal heat source spaced away from a substrate in Rapp et al. and Lacey in order to heat a metallic plating material to a vaporizing temperature for deposition as taught by White et al.

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43. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rapp et al., Lacey and White et al. as applied to claims 27 and 38 above, and further in view of Japanese Patent No. 10-168576A to Akiyama et al.

44. Rapp et al., Lacey and White et al. disclose the invention substantially as claimed and as described above.

45. However, Rapp et al., Lacey and White et al. fail to teach the conduit as releasably connected to the vacuum source.

46. Akiyama teaches releasably connecting a reaction chamber to a vacuum source for the purpose of providing the capability of attaching the reaction chamber to multiple vacuum sources (solution of abstract).

47. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a conduit releasably connected to a vacuum source in Rapp et al., Lacey and White et al. in order to have the capability of attaching a reaction chamber to multiple vacuum sources as taught by Akiyama.

48. Claims 39-45, 47 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,364,481 to Sasaki et al. in view of U.S. Patent No. 4,342,631 to White et al. and Japanese Patent No. 08-311649 A to Yo.

49. Sasaki et al. disclose a vacuum metallization apparatus substantially as claimed in Figures 8A and 8B. The apparatus comprises: a conveyor (2-4) that movably supports a substrate; a vacuum chamber (8) that is movable between a first position in which a vacuum environment may be created around a portion of the substrate and a second position in which the vacuum chamber is spaced apart from the portion of the substrate; a metal source (51) positioned within the chamber; a thermal heat source (6) positioned within the vacuum chamber, the thermal heat source being spaced from the substrate when the vacuum chamber is in the first position.

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50. However, Sasaki et al. fail to teach that the thermal heat source being spaced from the substrate when the vacuum chamber is in a first position. The first position coinciding with a position where processing takes place and the second position coinciding with a non-processing position.

51. White et al. teach the use of a thermal heat source spaced away from a substrate during processing, where the thermal heat source is provided for the purpose of heating a metallic plating material to a vaporizing temperature for deposition (column 5, rows 9-19).

52. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a thermal heat source spaced away from a substrate in Sasaki et al. in order to heat a metallic plating material to a vaporizing temperature for deposition as taught by White et al.

53. Sasaki et al. and White et al. fail to teach a control coupled to the vacuum chamber and the thermal heat source, the control configured to control the heat source to deposit a metal layer onto the portion of the substrate when the vacuum is created.

54. Yo teaches the use of a controller (15) in a vacuum vessel for the purpose of controlling a heating temperature of a source and the degree of vacuum in the vacuum vessel so that a thin film having a desired composition can be formed (Purpose and Constitution).

55. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a controller coupled to the vacuum chamber and the thermal heat source in Sasaki et al. and White et al. in order to form a thin film with a desired composition as taught by Yo.

56. With respect to claim 40, as shown in the embodiment in Figures 8A and 8B the processing apparatus comprises a plurality of modular units that are vertically arranged with their respective treatment planes, disposed in different horizontal planes.

57. With respect to claim 41, the modular units are removable from a treatment position to a retracted position, which allows the substrate to advance (see Figures 8a and 8b).

58. With respect to claims 42 and 43, Sasaki et al. provide many embodiments containing at least three and/or between three and six modular units (see Figures 9-11 and 15 a & b; column 4, rows 30-32).

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59. With respect to claim 44, the modular units comprise conduits (71) for communication with a vacuum source and a gas source (column 9, rows 58-60).

60. With respect to claim 45, the modular units comprise a cavity formed by the sealing of the walls with the substrate (see Figures 8a and 8b).

61. With respect to claim 47, the modular units comprise heating elements (6).

62. With respect to claim 50, the modular unit may comprise a pretreatment assembly as shown in the embodiment illustrated by Figure 9. The first chamber 31 can be used for pretreatment.

63. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al., White et al. and Yo as applied to claims 39-45, 47 and 50 above, and further in view of U.S. Patent No. 5,536,322 to Wary et al.

64. Sasaki et al., White et al. and Yo disclose the invention substantially as claimed and as described above.

65. However, Sasaki et al., White et al. and Yo fail to teach a modular unit with a triangular cross section.

66. Wary et al. disclose a deposition chamber with a triangular cross section (Figures 2, 3, 10 and 11) for the purpose of minimization of chamber volume and maximization of vapor flow (column 8, rows 29-42).

67. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a deposition chamber with a triangular cross section in Sasaki et al., White et al. and Yo in order to minimize chamber volume and maximize vapor flow as taught by Wary et al.

68. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al., White et al. and Yo as applied to claims 39-45, 47 and 50 above, and further in view of U.S. Patent No. 4,342,631 to White et al.

69. Sasaki et al., White et al. and Yo disclose the invention substantially as claimed and as described above.

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70. However, Sasaki et al., White et al. and Yo fail to teach the heater as a filament. Nor do Sasaki et al. and Yo teach the apparatus comprising a removable cane as a vapor source.

71. White et al. disclose the use of a filament for the purpose of using the filament (Figure 1, 20) as vaporizing means arranged to receive and heat a metal source (cane) being used as a deposition/plating material (column 4, rows 8-16). Examiner notes that the cane is removable in the sense that once the cane is vaporized it is removed from its position where it is received within the heating filament.

72. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a filament and cane in Sasaki et al., White et al. and Yo in order to receive and heat a material (cane) intended for deposition on a substrate as taught by White et al.

73. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al., White et al. and Yo as applied to claims 39-45, 47 and 50 above, and further in view of U.S. Patent No. 5,053,252 to Kimura et al.

74. Sasaki et al., White et al. and Yo disclose the invention substantially as claimed and as described above.

75. However, Sasaki et al., White et al. and Yo fail to teach any of the units comprising a cutting element.

76. Kimura et al. disclose a film-forming chamber containing a cutting element for the purpose of cutting a substrate to a predetermined size (Figure 3, 9; column 1, rows 53-58).

77. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a cutting element in any of the modular units in Sasaki et al., White et al. and Yo in order to cut the substrate to a predetermined size as taught by Kimura et al.

Allowable Subject Matter

78. Claims 29-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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79. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or fairly suggest an in-line apparatus capable of creating an EMI shield, the apparatus comprising: a conveyor assembly capable of moving a substrate from a first station to a second station and to a third station; a vacuum shaping assembly disposed at the first station, the vacuum shaping assembly comprising a vacuum source that pulls the substrate against a surface of a mold to shape the substrate into an EMI shield body; a metallization assembly at the second station that can create a seal around the shaped substrate, wherein the metallization the metallization assembly deposits a metal layer onto the shaped substrate; and a cutting assembly disposed at the third station to cut the shaped substrate, the cutting assembly being movable relative to the shaped substrate. **The apparatus further characterized by the conveyor assembly positioning at least a portion of the substrate along a plane, wherein the shaping assembly , metallization assembly and cutting assembly are movable orthogonal to the plane of the substrate OR characterized by the shaping assembly comprising a first portion disposed on a first side of the substrate and a second portion disposed on a second side of the substrate.**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

80. Applicant's arguments filed 14 November 2003, with respect to claims 1-5, have been fully considered but they are not persuasive. With respect to Applicant's argument that the thermal heat source of Sasaki et al. is not "spaced from the substrate", Examiner disagrees. When the apparatus is in a second position apart from the substrate, so is the thermal heat source. Likewise, Applicant's argument that Sasaki et al. fail to teach "a movable chamber configured to create a vacuum environment around a portion of the substrate" is also taught. In addition to the passages relied on above, Sasaki et al. also provides this teaching at column 4, rows 4-8. Examiner also notes that in addition to the

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individual modular chambers being capable of maintaining a vacuum, the main chamber which houses the modular chamber is capable of maintaining a vacuum.

81. Applicant's arguments with respect to claim 20 and the claims dependent thereon have been considered but are moot in view of the new ground(s) of rejection. New art (Gallez) has been cited to address the newly added recitation "wherein the rotation of the processing apparatus allows a different modular unit to be positioned adjacent the substrate. Examiner also notes that Sasaki et al. does in fact comprise a plurality of modular units, where the definition of modular has been taken as "any in a series of standardized units for use together" as defined by the Merriam-Webster Online Dictionary.

Conclusion

83. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 703.305.3142. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on 703.308.1633. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9310 for regular communications and 703.872.9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0661.

km
February 5, 2004

P. Hassanzadeh
Parviz Hassanzadeh
Primary Examiner
Art Unit 1763